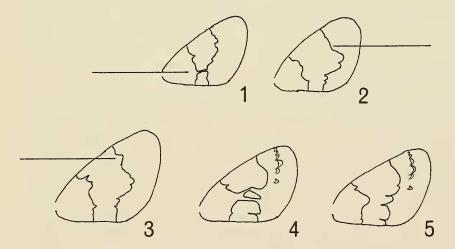
## **IDENTIFICATION OF GEOMETRIDAE**

## A GUIDE TO THE SEPARATION OF LAMPROPTERYX, ECLIPTOPERA AND ELECTROPHAES SPECIES (LEP.: GEOMETRIDAE)

## By ADRIAN M. RILEY\*

All four species in this group of geometroid moths (Lampropteryx otregiata Metcalf (Devon carpet), L. suffumata Dennis & Schiffermuller (water carpet), Ecliptopera silaceata D. & S. (small phoenix) and Electrophaes corylata Thunberg (broken-barred carpet)) have a black or brownish black, white-edged median band on pale brownish grey or grey forewings. All four fly in woodlands during may (suffumata in April and May; the others in May and June).

Their superficial resemblance and the possibility of finding them all in the same place, at the same time, can lead to confusion over identification. Reference to varying shades of brown or greyish browns as a diagnostic aid is only useful when specimens are in perfect condition. Worn individuals often appear very similar in colour. However, the shape of the median bands of the forewings can be used to separate these species. (See Figs. 1-5).



Figs. 1-5 : 1. Electrophaes corylata 2. Lampropteryx otregiata 3. Lampropteryx suffumata 4 & 5. Ecliptoptera silaceata.

E. corylata usually has the median band broken or tightly constricted at about one third of its length from the dorsum.

L. otregiata has the upper half of the postmedian edge of the band straight whereas in L. suffumata there is an extra angulation or

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point. Suffumata is also usually larger with a forewing length of approximately 15 mm. compared with 12mm. in otregiata.

E. silaceata has a heavily indented median band, often divided into roughly equal halves. There is also a series of dark lunules along the postmedian line, some of which are conspicuous on the underside of the forewing. They are not present in the other three species.

## Notes and Observations

CHRYSOLINA ORICALCIA MÜLL. (COL.: CHRYSOMELIDAE) IN S. E. LONDON. - The whole of this most attractive genus has long been very scarce or virtually absent in the immediate environs of London, on the south-east side at all events; though, as witness the localities given by Fowler (1890, Col. Brit. Isl. 4: 303-8), it was not always so. Up to now I have never been able to find even such allegedly common and generally distributed species as C. polita L. or C. staphylea L. in my home district. Great was my surprise and satisfaction therefore upon at last turning up the local and mostly uncommon C. oricalcia Müll. at the edge of the Shooters Hill Woods, a mere mile from here, by sweeping hedge-parsley (Anthriscus sylvestris) on 29th June. The beetle appeared to be restricted to an area of some 6 or 7 square yards at a rough estimate, in half-shade, four being taken that evening, two on the next, and one more on 6th July. The same plant (with other umbellifers) was diligently swept for a much longer distance along the Eltham Common edge of the woods - on parts of which it grows profusely - without encountering any further specimens.

What makes the occurrence even more unexpected is the fact that I had worked the locality, including the area concerned, on frequent occasions over the years – especially the last one, 1986; admittedly without any special attention to the hedge-parsley (an unproductive plant hereabouts) yet certainly not ignoring it. The question therefore poses itself: has *C. oricalcia* moved into the area only very lately? But in fact the species of *Chrysolina* tend to be sedentary insects little given to migration. Thus it seems more likely that *oricalcia* has long existed there, but mostly at a density so low that it has been missed; while some factor may have caused an increase this season, 1987 – even though the summer in these parts has not been notable for high temperatures before the very end of June. There are old records from as near here as Plumstead and Abbey Wood, and the beetle is known to occur at the present time, I believe very locally, in N. E. Surrey.

The Shooters Hill beetles were placed in a perspex sandwichbox and supplied with foliage of goutweed or ground-elder (*Aegopodium podagraria*) from the garden. This they took to quite readily, feeding mainly at night and not or barely showing themselves in